Application No.: Not Yet Assigned

Docket No.: 21604-00023-US1
JC17 Rec'ul Circle 20 JUN 2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) An electronic instrument composed by pivoting a first member provided with a display portion to a second member, provided with an operating portion and connected electrically to the first member through wirings or the like, through a hinge device to be rotatable substantially in the horizontal direction, said hinge device characterized in that A hinge device for pivoting a first coupling member having a shaft portion is provided in one of said first member and said second member, a second coupling member having a bearing hole portion for bearing said shaft portion is provided in the other member, said first coupling member and said second coupling member are coupled with each other through the shaft portion to be rotatable relative to each other so that the first member may be rotated through the shaft portion relative to the second member in any direction of right and left directions, and an excessive rotation preventing mechanism for preventing relative excessive rotation of the first member in any direction of the right and left directions relative to the second member is provided, the excessive rotation preventing mechanism is characterized in that fits around a an annular rotary member is provided to be rotatable in any direction of the right and left directions relative to said shaft portion, a first abutment retainer mechanism is provided in which an abutment portion with which a projection provided on said rotary member is brought into abutment is formed to project from a circumferential surface of the shaft portion and in which the abutment portion is abutted against and retained at the projection even if the first coupling member or the second coupling member is rotated in any direction of the right and left directions so that said rotary member is cooperatively rotated in the right and left directions together with the shaft portion, a second abutment retainer mechanism, in which a projecting portion is formed to project from a surface of the second coupling member in which said projection is abutted and retained and said abutment portion is not abutted but allows the upward passage when said shaft

portion and said rotary member are rotated together in any direction of the right and left directions, and said projection abuts against and retained at the projecting portion to thereby prevent the cooperative rotation, is provided in said rotary member and said second coupling member, and said excessisve rotation preventing mechanism is adapted to prevent the horizontal rotation of the first member in a position where the first member is directed to a real back side from a position where the first member is directed to a real frontal side even if the first member is rotated in any direction of the right and left directions in the horizontal direction to said second member, a first abutment retainer mechanism is provided in which the first coupling member or the second coupling member even when it rotates in any direction of the right and left directions so that the rotary member is rotated together in the right and left directions and a second abutment retainer mechanism for preventing, by abutment retention, the cooperative rotation even when the first coupling member or the second coupling member and the said rotary member are rotated in any direction of the right and left directions is provided in the first rotary member are rotated in any direction of the right and left directions is provided in the first rotary member and the second coupling member or the first coupling member.

2. (Currently Amended) The hinge device electronic instrument according to claim 1, wherein said excessive rotation preventing mechanism fits around an annular rotary member that is rotatable relative to said shaft portion in any direction of the right and left directions, a first abutment portion for being abutted against and retained at the respective right and left side portions of a first retainer portion a projection provided in said rotary member when said first coupling member or said second coupling member is rotated in the respective right and left directions is provided in said first coupling member or said second coupling member to project from a circumferential surface of said shaft portion and said first abutment portion is abutted against and retained at the right and left side portions of the first retainer portion projection, so that said first coupling member or said second coupling member shaft portion and said rotary member may be rotated in any direction of the right and left directions together to form said first abutment retainer mechanism, a second abutment retainer mechanism is provided for preventing the cooperative rotation between the rotary member and the shaft portion by said first abutment retainer mechanism, said second abutment retainer mechanism has a second abutment portion

formed to project from a surface of said second coupling member for allowing an upward passage without abutting against the first abutment portion while being retained at one side portion of right and left side portion of the projection provided on said rotary member when said shaft portion and said rotary member are rotated together in any one direction of said right and left directions, and a third abutment portion is formed to project from a surface of said second coupling member for allowing upward passage without the first abutment portion abutting against and for being abutted against and retained at a side portion of the opposite side to the side portion for being abutted against the second abutment portion out of the right and left side portions of the projection provided on said rotary member when the shaft portion and said rotay member are rotated in any direction together in the right and left direction. a second abutment portion for being abutted against and retained at one side portion of right and left side portions of a second retainer portion provided in said rotary member to prevent the cooperative rotation when said first coupling member or said second coupling member and said rotary member are rotated in any direction of the right and left directions by said first abutment retainer mechanism, and a third abutment portion for being abutted against and retained at a side portion on the opposite side to the side portion against which said second abutment portion is abutted and at which said second abutment portion is retained out of the right and left side portions of the second retainer portion provided in said rotary member to prevent the cooperative rotation when said first coupling member or said second coupling member and said rotary member are rotated together in any direction of the right and left directions is provided in said second coupling member or said first coupling member to form said second abutment retainer mechanism.

3. (Currently Amended) The hinge device electronic instrument according to claim 2, wherein a position where the first abutment portion provided in said first coupling member 3 or said second coupling member shaft portion is rotation-stopped by said first abutment retainer mechanism and said second abutment retainer mechanism when said first coupling member or said second coupling member is rotated in the left direction and a position where the first abutment portion provided in said first coupling member or said second coupling member shaft portion is rotation-stopped by said first abutment retainer mechanism and said second abutment

retainer mechanism when said first coupling member or said second coupling member is rotated in the right direction are identified with each other.

4. (Currently Amended) An electronic instrument composed by pivoting a first member provided with a display portion to a second member, provided with an operating portion and connected electrically to the first member through wirings or the like, through a hinge device to be rotatable substantially in the horizontal direction, said hinge device characterized in that a first coupling member having a shaft portion is provided in one of said first member and said second member, a second coupling member having a bearing hole portion for bearing said shaft portion is provided in the other member, said first coupling member and said second coupling member are coupled with each other through the shaft portion to be rotatable relative to each other so that the first member may be rotated through the shaft portion relative to the second member in any direction of right and left directions, and an excessive rotation preventing mechanism for preventing relative excessive rotation of the first member in any direction of the right and left directions relative to the second member is provided, said excessive rotation preventing mechanism fits around an annular rotary member that is rotatable relative to said shaft portion in any direction of the right and left directions, a first abutment portion for being abutted against and retained at the respective right and left side portions of a projection provided in said rotary member when said first coupling member or said second coupling member is rotated in the respective right and left directions is provided to project from a circumferential surface of said shaft portion and said first abutment portion is abutted against and retained at the right and left side portions of the projection, so that said shaft portion and said rotary member may be rotated in any direction of the right and left directions together to form said first abutment retainer mechanism, a second abutment retainer mechanism is provided for preventing the cooperative rotation between the rotary member and the shaft portion by said first abutment retainer mechanism, said second abutment retainer mechanism has a second abutment portion formed to project from a surface of said second coupling member for allowing an upward passage without abutting against the first abutment portion while being retained at one side portion of right and left side portion of the projection provided on said rotary member when said shaft portion and said rotary member are rotated together in any one direction of said right and

left directions, and a third abutment portion is formed to project from a surface of said second coupling member for allowing upward passage without the first abutment portion abutting against and for being abutted against and retained at a side portion of the opposite side to the side portion for being abutted against the second abutment portion out of the right and left side portions of the projection provided on said rotary member when the shaft portion and said rotary member are rotated in any direction together in the right and left direction, wherein a position where the first abutment portion provided in said shaft portion is rotation-stopped by said first abutment retainer mechanism and said second abutment retainer mechanism when said first coupling member or said second coupling member is rotated in the left direction and a position where the first abutment portion provided in said shaft portion is rotation-stopped by said first abutment retainer mechanism and said second abutment retainer mechanism when said first coupling member or said second coupling member is rotated in the right direction are identified with each other, and said excessive rotation preventing mechanism is adapted to prevent the horizontal rotation of the first member in a position where the first member is directed to a real back side from a position where the first member is directed to a real frontal side even if the first member is rotated in any direction of the right and left directions to said second member. An electronic instrument in which the hinge device according to any one of claims 1 to 3 is provided in a pivot portion.